BTEC Assignment Brief

Qualification	Pearson BTEC International Level 3 Diploma in Engineering Pearson BTEC International Level 3 Diploma in Electrical/Electronic Engineering Pearson BTEC International Level 3 Diploma in Mechanical Engineering Pearson BTEC International Level 3 Diploma in Digital Engineering Pearson BTEC International Level 3 Diploma in Manufacturing Engineering Pearson BTEC International Level 3 Extended Diploma in Engineering Pearson BTEC International Level 3 Extended Diploma in Electrical/Electronic Engineering Pearson BTEC International Level 3 Extended Diploma in Mechanical Engineering Pearson BTEC International Level 3 Extended Diploma in Digital Engineering Pearson BTEC International Level 3 Extended Diploma in Manufacturing Engineering
Unit number and title	**Unit 34: Computer Systems Support and Performance**
Learning aim(s)	**B:** Develop a support plan for a new computer system, as undertaken in industry. **C:** Carry out routine support of a computer system and improve its performance
Assignment title	Develop and undertake the support procedures for an engineering organisation
Assessor	
Issue date	
Hand in deadline	

Vocational Scenario or Context	Following the successful presentation to management of your investigation into the two internal computer systems, you have been asked to carry out the routine support of each computer system. During your investigation you have uncovered areas that need addressing in the support procedures of each system, so you will be required to develop your own support plan for each system, carry that plan out and perform upgrades and updates to improve each system's performance.

Task 1	Develop a detailed support plan to show the procedures you will undertake on each system. The plan for each system must also include the following elements: ● Graphical representation of systems including, upgrade paths, schedules, Gantt charts and maintenance checklists ● Contingency plans o Scope of maintenance o Frequency of maintenance o Security threats

	o Risks from contract staff o Conformity of contingency plans ● Description and justification of automated tasks ● Levels of support and standard operating procedures You will need to identify upgrades for each computer system that will improve the system, taking into consideration the procurement, sustainability, and environmental issues of each component. The upgrades should consist of software and a hardware upgrade. Now, carry out the routine maintenance you have planned, and upgrade and improve the efficiency and productivity of each system, making use of automated tools where appropriate. You must review your own improvements ensuring that the system's performance has been improved as a result of your planned activity. In order to confirm that your upgrades have had a positive effect on the system you should perform unit testing on each system, justifying the choice of each upgrade.
Checklist of evidence required	● A collection of documents for the plan, consisting of a developmental log with witness statements, upgrade paths, Gantt charts, checklists and a written report to provide an overview to the support plan. ● Results of unit testing showing before and after upgrades were applied to the system ● Written analysis of how the system has improved since the maintenance and upgrade procedure

Criteria covered by this task:	
Unit/Criteria reference	To achieve the criteria you must show that you are able to:
34/BC.D2	Refine, during the process, the support undertaken safely for a computer system justifying the choices made to optimise the performance of a system against the detailed support plan.
34/B.M2	Produce a detailed support plan covering contingency planning, levels of support and standard operating procedures, explaining which tasks could be automated.
34/C.M3	Perform routine housekeeping, use automated tools and upgrade a computer system safely to improve its performance, while considering alternative solutions.
34/B.P3	Produce a support plan for a computer system covering contingency planning, levels of support and standard operating procedures, identifying any automated tasks.
34/C.P4	Perform routine housekeeping and use automated tools to support a computer system safely.
C.P5	Test the performance of a supported system safely, explaining how performance could be improved.

Sources of information to support you with this Assignment	● International Standards Organisation (http://www.iso.org/) ● Spiceworks - Tips and problem solving techniques for IT Professions (http://www.spiceworks.com/) ● The PC Guide and detailed technical reference (www.pcguide.com) ● Limoncelli, T., Hogan, C. J. and Chalup, S. R., The Practice of System and Network Administration (2nd edition), Addison Wesley, 2007 (ISBN 978-0-3214-9266-1) ● McRae, K., Computer Manual: The Step-by-step guide to upgrading, repairing and maintaining a PC (5th edition), Haynes & Co. Ltd, 2010 (ISBN 978-1-8442-5928-1) Further useful resources may be found at qualifications.pearson.com/en/support/published-resources.html#step1